

Zehang Richard Li

Contact Information

YALE UNIVERSITY
DEPARTMENT OF BIostatISTICS
NEW HAVEN, CT 06510

(206) 902-7951
zehang.li@yale.edu
<http://www.zehangli.com>

Academic Positions

2018 - Postdoctoral Associate, Department of Biostatistics, Yale University
Supervisor: Forrest W. Crawford

Education

2018 Ph.D. in Statistics, University of Washington
Advisor: Tyler H. McCormick

2013 B.Sc. in Risk Management Science, The Chinese University of Hong Kong

Publications

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In Submission/Review Process

1. **Zehang R Li**, Tyler H McCormick, and Samuel J Clark. [Bayesian joint spike-and-slab graphical lasso](#). *Submitted, arXiv:1805.07051*, 2018.
2. **Zehang R Li**, Tyler H McCormick, and Samuel J Clark. [Using Bayesian latent Gaussian graphical models to infer symptom associations in verbal autopsies](#). *Submitted, arXiv: 1711.00877*, 2018.
3. **Zehang R Li** and Tyler H McCormick. [An Expectation Conditional Maximization approach for Gaussian graphical models](#). *In revision, arXiv:1709.06970*, 2017.
4. Tsuyoshi Kuniyama, **Zehang R Li**, Samuel J Clark, and Tyler H McCormick. [Bayesian factor models for probabilistic cause of death assessment with verbal autopsies](#). *In revision, arXiv:1803.01327*, 2018.
5. Prabhat Jha, Dinesh Kumar, Rajesh Dikshit, Atul Budukh, Rehana Begum, Prabha Sati, Patrycja Kolpak, Richard Wen, Shyamsundar J Raithatha, Utkarsh Shah, **Zehang R Li**, Lukasz Aleksandrowicz, Prakash Shah, Kapila Piyasena, Tyler H McCormick, Hellen Gelband, and Samuel J Clark. [Computer versus physician coding of cause of death for Verbal Autopsies: randomised trial of 9374 deaths in 117 villages in India](#). *Submitted*, 2018.

Peer Reviewed

1. **Zehang R Li**, Yuan Hsiao, Jessica Godwin, Bryan D Martin, Jon Wakefield, and Samuel J Clark. [Changes in the spatial distribution of the Under-Five Mortality Rate: Small-area analysis of 122 DHS surveys in 262 subregions of 35 countries in Africa](#). *PloS One*, 14(1):e0210645, 2019.
2. Georges Reniers, Sylvia Blom, Judith Lieber, Abraham J Herbst, Clara Calvert, Jacob Bor, Till Barnighausen, Basia Zaba, **Zehang R Li**, Samuel J Clark, et al. [Tuberculosis mortality and the](#)

male survival deficit in rural South Africa: An observational community cohort study. *PloS one*, 12(10):e0185692, 2017.

3. Georges Reniers, Sylvia Blom, Clara Calvert, Alexandra Martin-Onraet, Abraham J Herbst, Jeffrey W Eaton, Jacob Bor, Emma Slaymaker, **Zehang R Li**, Samuel J Clark, et al. Trends in the burden of HIV mortality after roll-out of antiretroviral therapy in KwaZulu-Natal, South Africa: an observational community cohort study. *The lancet HIV*, 4(3):e113–e121, 2017.
4. Tyler H McCormick, **Zehang R Li**, Clara Calvert, Amelia C Crampin, Kathleen Kahn, and Samuel J Clark. Probabilistic cause-of-death assignment using verbal autopsies. *Journal of the American Statistical Association*, 111(515):1036–1049, 2016.
5. Ngai Hang Chan, **Zehang R Li**, and Chun Yip Yau. Forecasting online auctions via self-exciting point processes. *Journal of Forecasting*, 33(7):501–514, 2014.

Working Papers

1. **Zehang R Li**, Jason Thomas, Tyler H McCormick, and Samuel J Clark. The openVA toolkit for Verbal Autopsies. *In preparation*, 2018.
2. Samuel J Clark, **Zehang R Li**, and Tyler H McCormick. Quantifying the contributions of training data and algorithm logic to the performance of automated cause-assignment algorithms for Verbal Autopsy. *arXiv: 1803.07141*, 2018.
3. **Zehang R Li**, Tyler H McCormick, and Samuel J Clark. InterVA4: an R package to analyze verbal autopsy data. *Center for Statistics and the Social Sciences Working Paper, No.146*, 2014.

Conference and Workshop Presentations

Invited talks

- “Towards better understanding of cause-of-death assignment using Verbal Autopsies”, Workshop on Mortality Monitoring in the Era of the SDGs, Rostock, Germany, 2018.
- “Bayesian latent Gaussian graphical models for mixed data”, *Topic-contributed*, Joint Statistical Meetings, Vancouver, Canada, 2018.
- “Introduction to openVA”, International Meeting on Verbal Autopsy in Civil Registration and Vital Statistics. Accra, Ghana, 2017.
- “Introduction to openVA”, Technical meeting on OpenVA and the way forward for in-country verbal autopsy analysis support. Columbus, USA, 2017.
- “Introduction to openVA”, WHO Verbal Autopsy Working Group Meeting. Geneva, Switzerland, 2016.

Contributed talks

- “Sparse motifs: discovering structure in massive graphs”, Joint Statistical Meetings, Chicago, USA, 2016.
- “Compact Bayesian models of massive social graphs”, Joint Statistical Meetings, Seattle, USA, 2015.

Poster presentations

- “ECM approaches for estimating Gaussian graphical model”, Joint Statistical Meetings, Vancouver, Canada, 2018.

“Probabilistic cause-of-death assignment using verbal autopsies”, Joint Statistical Meetings, Chicago, USA, 2016.

“Probabilistic cause-of-death assignment using verbal autopsies”, UW Data Science Networking, Seattle, USA, 2016.

“Forecasting online auctions via self-exciting point processes”, ISI Young Statisticians’ Meeting, Hong Kong, 2013.

Professional Experience

2017 - 2019 Consultant, **Vital Strategies**, NY, USA
2018 Consultant, **CHAMPS Network, Emory Global Health Institute**, GA, USA
2016 Research Intern, **Microsoft Research**, Redmond, WA, USA
2012 Research Intern, **Census and Statistics Department**, Hong Kong

Teaching

Nov 2018 **Co-Instructor**, 2-week Training-of-Trainers workshop on “VA Data Quality Review and COD Assignment”, Columbus, USA
July 2018 **Co-Instructor**, 2-day short course on “Bayesian Small Area Estimation using complex survey data”, Asian Population Association Conference, Shanghai, China
Apr 2018 **Co-Instructor**, 2-day short course on “Bayesian Small Area Estimation using complex survey data”, Population Association of America Annual Meeting, Denver, USA
Summer 2017 **Instructor**, STAT 394 Probability I, UW (rating: 4.3/5)
Spring 2017 **TA**, STAT 435 Introduction to Statistical Machine Learning, UW (rating: 4.7/5)
Winter 2017 **TA**, STAT 390 Statistical Methods in Engineering and Science, UW (rating: 3.5/5)

R packages

SUMMER Spatio-Temporal Under-Five Mortality Methods for Estimation
openVA Suite of packages for automated verbal autopsy coding algorithms
InSilicoVA Probabilistic verbal autopsy coding with InSilicoVA algorithm
InterVA4 R implementation of the InterVA4 software
InterVA5 R implementation of the InterVA5 software
Tariff R implementation of the Tariff Method for Verbal Autopsy

Honors and Awards

2018 Student Paper Award, The Section on Bayesian Statistical Science of the ASA, JSM
2016 Travel Award, UW Center for Statistics and the Social Sciences (CSSS)
2013 Blalock Fellowships, UW Center for Statistics and the Social Sciences (CSSS)
2012 Mathematical Contest in Modeling (MCM), *Meritorious Winner*
2012 Dragon Crowd SCHIESSE International Exchange Scholarships
2012 Shaw College Scholarship for Outgoing Exchange Students
2010 Faculty of Science Dean’s List
2009 Scholarship for Excellent Mainland Student (four years tuition fee and living expense)

Professional Involvement

Organizer and chair, Topic-contributed session, Statistical advances in population research in the developing world, JSM, 2019

Moderator, Statistics in the Community (StatCom), 2016 - 2018

Member, New Lecturer Search Committee, Department of Statistics, UW, 2017

Department Statistical Consultant, 2014

Reviewer, *Sociological Methodology*, *Statistica Sinica*, *Statistical Analysis and Data Mining*

Professional Societies membership: American Statistical Association, Institute of Mathematical Statistics, International Chinese Statistical Association, International Society for Bayesian Analysis, Population Association Of America, International Union for the Scientific Study of Population